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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	10828935
Filing Date	2004-04-21
First Named Inventor	Gorenstein
Art Unit	1639
Examiner Name	Wessendorf, T. D.
Attorney Docket Number	UTMB:1024

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	1	2004/026260	WO	A2	2004-04-01	WILSON, et al.		☐
	2	2005/003291	WO	A2	2005-01-13	GORENSTEIN, et al.		☐
	3	2005/018357	WO	A2	2005-03-03	GORENSTEIN, et al.		☐

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TDW	4	2005/032455	WO	A2	2005-04-14	GORENSTEIN, et al.		☐
TDW	5	2005/037053	WO	A2	2005-04-28	GORENSTEIN, et al.		☐

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TDW	1	Partial Supplementary European Search Report for Application No. 04776088.9 (PCT/US2004/016246) dated 29 June 2007	☐
	2	Partial Supplementary European Search Report for Application No. 04809405.6 (PCT/US2004/016061) dated 3 July 2007	☐
	3	BANE, et al., "DNA affinity capture and protein profiling by SELDI-TOF mass spectrometry: effect of DNA methylation," Nuceic Acids Research (2002), 30:e69	☐
	4	DICK, et al., "Aptamer-Enhanced Laser Desorption/Ionization of Affinity Mass Spectrometry," Analytical Chemistry (2004), 76:3037-3041	☐
	5	WANG, et al., "Identification of Proteins Bound to a Thioaptamer Probe on a Proteomics Array," Biochemical and Biophysical Research Communications (2006), 347:586-593	☐

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TDW	1	5270163		1993-12-14	GOLD, et al.	
	2	5475096		1995-12-12	GOLD, et al.	
	3	5582981		1996-12-10	TOOLE, et al.	
	4	5639603		1997-06-17	DOWER, et al.	
	5	5663153		1997-09-02	HUTCHERSON, et al.	
	6	5668265		1997-09-16	NADEAU, et al.	
	7	5670637		1997-09-23	GOLD, et al.	
	8	5696249		1997-12-09	GOLD, et al.	

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TDW	9	5756291		1998-05-26	GRIFFIN, et al.	
	10	5801154		1998-09-01	BARACCHINI, et al.	
	11	5844106		1998-12-01	SEELA, et al.	
	12	9171792	B2	2001-01-09	BRENT, et al.	
	13	6180348	B1	2001-01-30	LI	
	14	6346611	B1	2002-02-12	PAGRATIS, et al.	
	15	6369206	B1	2002-04-09	COLE, et al.	
	16	6514948	B1	2003-02-04	RAZ, et al.	
	17	6551795	B1	2003-04-22	RUBENFIELD, et al.	
	18	6610504	B1	2003-08-26	YUAN	
	19	6713616	B2	2004-03-30	PAGRATIS, et al.	

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	20	6867289	B1	2005-03-15	GORENSTEIN, et al.	

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	1	20010014461	A1	2001-08-16	HUTCHENS, et al.	
	2	20010014479	A1	2001-08-16	HUTCHENS, et al.	
	3	20010034330	A1	2001-10-25	KENSIL	
	4	20030133229	A1	2003-07-31	KLINMAN, et al.	
	5	20030162190	A1	2003-08-28	GORENSTEIN, et al.	
	6	20030162216	A1	2003-08-28	GOLD, et al.	
	7	20030186906	A1	2003-10-02	SCHLINGENSIEPEN, et al.	

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TDW	1	94/01550	WO	A1	1994-01-20	AGRAWAL, et al.		☐
	2	0 855 184	EP	A1	1998-07-29	LIPFORD, et al.		☐
	3	99/54506	WO	A1	1999-10-28	LI		☐
	4	00/24404	WO	A1	2000-05-04	GORENSTEIN, et al.		☐

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TDW	1	AMARZGUIOUI, M., et al., Nuc Acids Res, 31, 589-595, (2003) – Tolerance for mutations and chemical modifications in a siRNA	☐
	2	ANDREOLA, M., et al., "Towards the Selection of Phosphorothioate Aptamers: Optimizing In Vitro Selection Steps with Phosphorothioate Nucleotides," European Journal of Biochemistry 267:5032-5040	☐
	3	BRAASCH, D.A., et al., Nucleic Acids Res, 30(23), 5160-7 (2002) -Antisense inhibition of gene expression in cells by oligonucleotides incorporating locked nucleic acids: effect of mRNA target sequence and chimera design	☐
	4	BRAASCH, D.A. AND D.R. COREY, Biochemistry, 41, 4503-4510 (2002) - Novel antisense and peptide nucleic acid strategies for controlling gene expression	☐

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TDW	5	CAPLEN, N.J., et al., PNAS, 98, 9742-9747 (2001) – Specific inhibition of gene expression by small double-stranded RNAs in invertebrate and vertebrate systems.	☐
	6	CASSIDAY, L., et al., "In Vivo Recognition of an RNA Aptamer by its Transcription Factor Target," Biochemistry (2001), 40:2433-3438	☐
	7	CHI, J.T., PNAS,100(11), 6343-6 (2003) - Genomewide view of gene silencing by small interfering RNAs.	☐
	8	DOUCETTE, et al., Proteomics (2001), 1:987-1000, Investigation of the Applicability of a Sequential Digestion Protocol Using Trypsin and Leucine Aminopeptidase M for Protein Identification by Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry	☐
	9	ELBASHIR, et al., "RNA Interference is Mediated by 21- and 22- nucleotide RNAs," Genes and Development (2001), 15:188-200	☐
	10	ELBASHIR, et al., "Functional Anatomy of siRNAs for Mediating Efficient RNAi in Drosophilia melanogaster Embryo Lysate," EMBO Journal (2001), 20:6877-6888	☐
	11	ELGEMEIE, "Thioguanine, Mercaptoputine: Their Analogs and Nucleosides as antimetabolites," Current Pharmaceutical Design (2003), 9:2627-2642	☐
	12	FIRE, et al., Nature, 391, 806 (1998) – Potent and specific genetic interference by dsRNA in C.elegans	☐
	13	GITLIN, L., et al., Nature, 418, 430-434 (2002) – Short interfering RNA confers intracellular antiviral immunity in human cells.	☐
	14	HU, W., et al., Curr Biol, 12, 1301-1311 (2002) – Inhibition of retroviral pathogenesis by RNA interference.	☐
	15	JACKSON, A.L., et al., Nat Biotech, 21(6), 635-637 (2003) – Expression profiling reveals off-target gene regulation by RNAi.	☐

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fdw	16	JACQUE, J.M., et al., Nature, 418, 435-438 (2002) – Modulation of HIV-1 replication by RNA interference.	☐
	17	JANSEN, B. AND U. ZANGEMEISTER-WITTE, Lancet Oncol, 3, 672-683 (2002) – Antisense therapy for cancer--the time of truth.	☐
	18	KANAORI, et al., "Effect of Phosphorothioate Chiraliy on i-Motif Structure and Stability," Biochemistry (2004), 43:5672-5679	☐
	19	KAWASAKI, H., et al (Taira), Nuc Acids Res, 31(3), 981-987 (2003) – siRNAs generated by recombinant human Dicer include specific and significant but target site-independent gene silencing in human cells.	☐
	20	KING, D. et al., "Combinatorial Selection and Binding of Phosphorothioate Aptamers Targeting Human NF-kappa B RelA (p65) and p50," Biochemistry (2002), 41:9696-9706	☐
	21	KING, D.J., "Selection, Binding and Design of Phosphorothioate Duplex Aptamers for the Transcription Factors NF-IL6 and NP-KB," dissertation August 2001	☐
	22	KOLLER, E., et al., Trends Pharm Sci, 21, 142-148 – Elucidating cell signaling mechanisms using antisense technology.	☐
	23	LESCAR, J., et al., Cell 105(1), 137-48. (2001) - The fusion glycoprotein shell of Semliki Forest virus: an icosahedral assembly primed for fusogenic activation at endosomal pH.	☐
	24	MCCAFFREY, A.P., et al., Nat Biotechnol, 21(6), 639-44 (2003) - Inhibition of hepatitis B virus in mice by RNA interference	☐
	25	MILLER, V.M.., et al., PNAS, 100(12), 7195-200 - Allele-specific silencing of dominant disease genes	☐
	26	NOVINA, C.D., et al., Nat Med, 8, 681-686 (2002) – siRNA-directed inibition of HIV-1 infection	☐

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	27	OPALINSKA, et al., Nature Reviews (2002), 1:503-514., Nucleic-Acid Therapeutics: Basic Principles and Recent Applications	☐
	28	PARRISH, S., et al (Fire research group), Mol Cell, 6, 1077-87 (2001) – Functional anatomy of a dsRNA trigger: differential requirement for the two trigger strands in RNA interference.	☐
	29	PLETNEV, S.V., et al., Cell 105(1), 127-36 (2001) - Locations of carbohydrate sites on alphavirus glycoproteins show that E1 forms an icosahedral scaffold.	☐
	30	RAVEH, S., "Peptidic Determinants and Structural Model of Human NDP kinase B Bound in Single-Stranded DNA," Biochemistry (2001), 40:5882-5893	☐
	31	SAZANI, et al., "Nuclear Antisense Effects of Neutral Anionic and Cationic Oligonucleotide Analogs," Nucleic Acids Research (2001), 29:3965-3974	☐
	32	SEMIZAROV, D., et al., PNAS, 100(11), 6347-52 (2003) - Specificity of short interfering RNA determined through gene expression signatures.	☐
	33	SONG, E., et al., Nat Med, 9, 347-351 (2003) – RNA interference targeting Fas protects mice from fulminant hepatitis.	☐
	34	SONG, E., et al., J Virol. 2003 Jul;77(13):7174-81 (2003) - Sustained small interfering RNA-mediated Human Immunodeficiency Virus Type 1 inhibition in primary macrophages.	☐
	35	UEDA, TAKUYA, et al. (1991) Phosphorothioate-containing RNAs show mRNA activity in the prokaryotic translation systems in vitro. Nucleic Acids Research, Vol. 19, No. 3, pp. 547-552.	☐
	36	XIA, H.B. et al. Nat Biotech, 20, 1006-1010 (2002) – siRNA-mediated gene silencing in vitro and in vivo.	☐
	37	YANG, X., et al., "Construction and Selection of Bead-Bound Combinatorial Oligonucleoside Phosphorothioate and Phosphoroditihioate Aptamer Libraries Designed for Rapid PCR-Based Sequencing," Nucleic Acid Research (2002), 30:132-140	☐

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TW	38	YOKOTA, T., et al. (Taira), EMBO Rep., 4(6), 602-608 (2003) – Inhibition of intracellular hepatitis C virus by synthetic and vector-derived small interfering RNAs.	☐
✓	39	ZHANG, HAIDI, et al. (2004), Single Processing Center Models for Human Dicer and Bacterial RNase III. Cell, Vol. 118, pp. 57-68.	☐

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